

- [54] **MULTI-TIERED GAME BOARD FOR THREE-DIMENSIONAL TIC-TAC-TOE GAMES**

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- [51] **Int. Cl.** **A63f 3/00**

- [58] **Field of Search...** 273/130 AC, 130 B, 131 AC,
273/131 D, 136 C, 136 E

[56] **References Cited**

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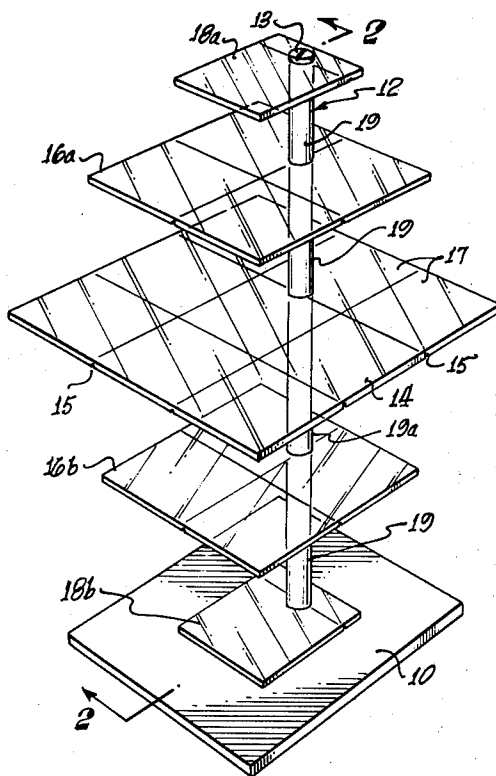
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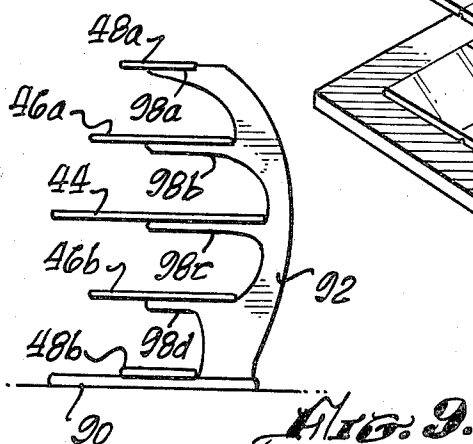
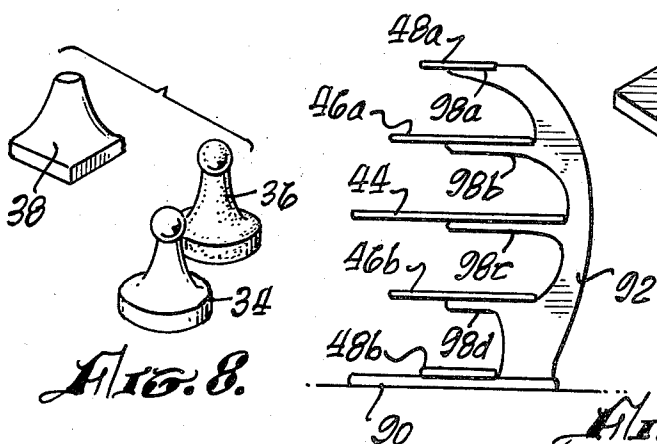
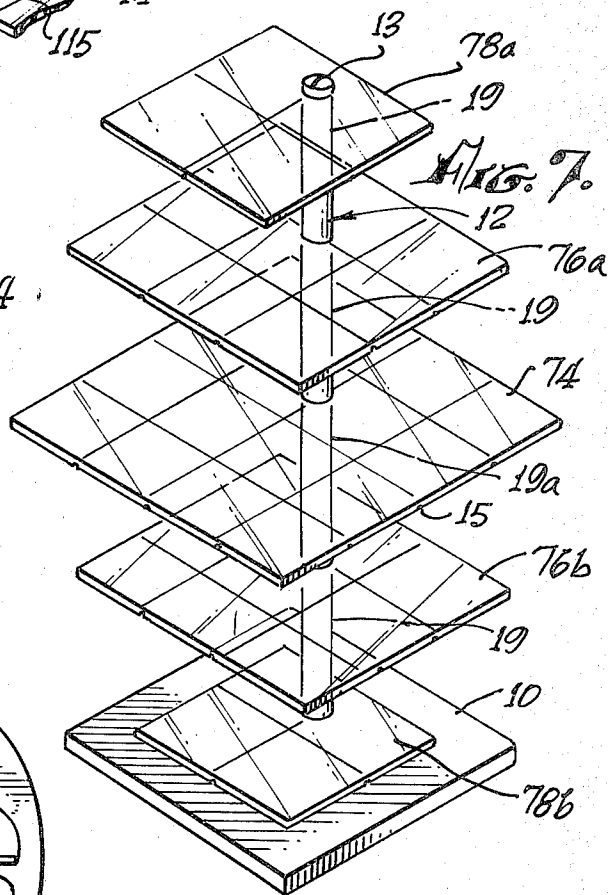
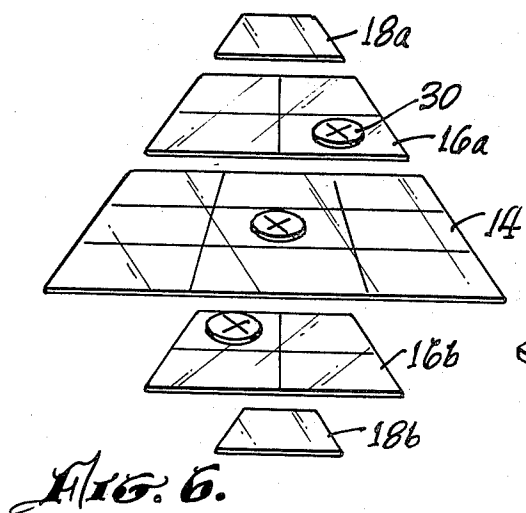
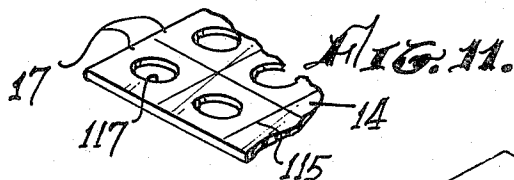
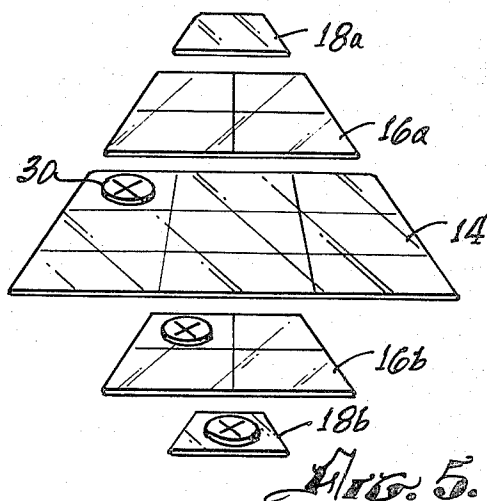
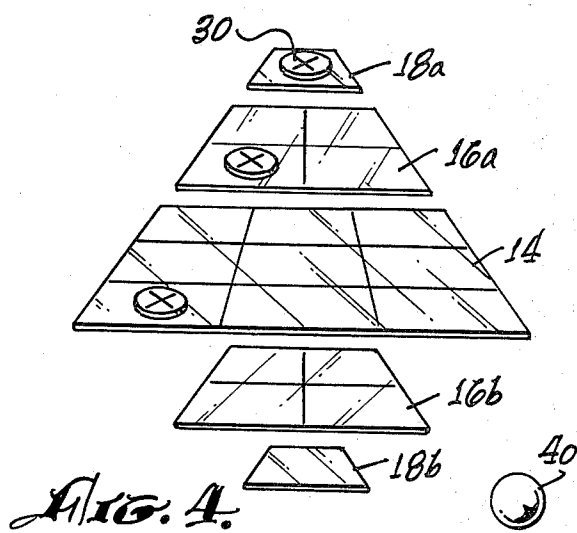
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[57] **ABSTRACT**

A multi-tiered game board for three-dimensional games of tic-tac-toe and its derivatives is provided with an odd number of playing surfaces in parallel, vertically spaced relationship. Each surface is subdivided into playing squares in mutually orthogonal ranks and files with the surfaces above and below the central one having one rank and file less than the immediately adjacent surface in the direction of the central one. The several playing surfaces are centered on a common vertical axis and the vertices of any surface are parallel to the vertices of all other surfaces. Markers of two, or more, colors or patterns are used with the multi-tiered game board, each player being supplied with a quantity of markers of a given color. The game is played by placing markers on unoccupied squares of the playing surfaces to produce linear rows of the same color. A winning combination requires the alignment of as many markers in a row as there are files and rows in the central surface.

10 Claims, 11 Drawing Figures





MULTI-TIERED GAME BOARD FOR THREE-DIMENSIONAL TIC-TAC-TOE GAMES

BACKGROUND OF THE INVENTION

This invention relates generally to games of strategy played between two or more opponents. It relates, more particularly, to a multi-tiered game board for the playing of modified tic-tac-toe games.

The well-known game of tic-tac-toe is generally played on a one-dimensional surface divided into nine playing squares in a three-by-three configuration. Players are permitted to place one marker each, in alternating moves, on the surface until one has succeeded in completing a linear array of three markers, representing a winning combination.

Three-dimensional forms of the game have been proposed and a game device for the playing of such a game is disclosed in U.S. Pat. No. 2,313,473. The devices of the prior art superimpose conventional tic-tac-toe surfaces on one another, or provide alternate forms in which a number of similar surfaces are superimposed.

Game boards of such construction admit of a very large number of possible winning combinations and do not provide for a game of greater interest than one-dimensional tic-tac-toe.

SUMMARY OF THE INVENTION

The present invention provides for an improved game board in which the superimposed playing surfaces are not of the same size but rather diminish in extent by one rank and one file in successive tiers above and below a central playing surface. Each playing surface is subdivided into squares, is centered on the same vertical axis as the other surfaces, and its vertices are aligned with these of the adjoining board.

The central, and largest, playing surface may be subdivided into nine squares, as in one-dimensional tic-tac-toe, or it may be larger, as long as the number of ranks and files remain equal. With at least one playing surface above the central one and another below it, winning arrays of three or more markers are possible in the central surface and in diagonal lines passing through squares in the three playing surfaces.

More than three surfaces may be provided, their number is limited only by the dimensions of the central surface and by the requirement that the outermost surfaces contain at least one playing square. Thus a game board with a three-by-three central surface is limited to five tiers, and one with a four-by-four central surface to seven tiers.

The rules of the game played on the board of the invention are modified to permit more than two players to participate, and to allow for differential valuations of scoring combinations where arrays longer than three markers are possible.

BRIEF DESCRIPTION OF THE ACCOMPANYING DRAWINGS

The preferred embodiment of the invention is described below with reference to the accompanying drawings, in which:

FIG. 1 is a perspective view of a game board of the invention with a central playing surface subdivided into nine squares;

FIG. 2 is a transverse section, taken along section line 2—2, of the embodiment of FIG. 1;

FIG. 3 is a perspective view of typical markers for the game;

FIGS. 4, 5 and 6 are schematic, perspective views of markers placed in representative scoring combinations on the game board of FIG. 1;

FIG. 7 shows another embodiment of the invention with five tiers and a central playing surface divided into sixteen squares;

FIG. 8 is a perspective view of markers differentiated by shape and color;

FIG. 9 is a side elevation of an alternate support structure for a five-tiered game board;

FIG. 10 is a schematic representation of a seven-tiered game board with 25 squares in a central playing surface; and

FIG. 11 is an alternate embodiment of a typical playing surface, shown in partial perspective view, using colored marbles as markers.

DESCRIPTION OF THE PREFERRED EMBODIMENT

A multi-tiered game board of the invention is shown in the perspective view of FIG. 1, supported on a base 10 and a column 12. A central playing surface, constructed from a rigid, transparent plastic sheet, is subdivided into nine squares 17 by saw kerfs 15.

Playing surfaces 16a and 16b, each of four squares, adjoin the central surface 14 at levels spaced above and below the latter by spacer sleeves 19 and 19a, respectively. Playing surfaces 18a and 18b, comprising a single square each, are at the top and bottom tiers of the assembly and are separated by spacers 19 from the surfaces 16.

Screws 11 and 13 are threaded into spacer 19a which is tapped at either end. The screw 11 passes first through the base 10 and the surface 18b, and then through a spacer 19 and surface 16b, before entering the spacer 19a. The screw 13 similarly retains surface 18a, a spacer 19, surface 16a, another spacer 19, and the central playing surface 14, in succession, before engaging the spacer 19a from above. The structure is shown in detail in the transverse section of FIG. 2, taken along section 2—2 of FIG. 1.

The perspective view of FIG. 3 shows two markers 30 and 32, with patterns representing a cross and a nought engraved on them respectively. Such markers may be used by two players in a game of three-dimensional tic-tac-toe on the board of FIG. 1.

FIGS. 4, 5 and 6 illustrate some of the possible scoring arrays of a particular player on the board of FIG. 1, using markers 30 in the illustrations.

In FIG. 4 a diagonal array moves from the topmost surface 18a, through surface 16a, to the central playing surface 14.

In FIG. 5 a similar combination is shown on a diagonal line passing through surfaces 14, 16b and 18b. The winning combination of FIG. 6 uses the surfaces 16 and the central surface 14.

In addition to the above combinations a player may score by placing three markers along any of the ranks or files of the central surface 14, on a diagonal of the surface 14, or on a vertical column interconnecting the single squares of the surfaces 18 with the median square of the surface 14.

The perspective view of FIG. 7 shows another embodiment of the invention in which a central surface 74 is subdivided into sixteen squares, in four ranks and

four files, and in which the support column 12 holds four additional playing surfaces 76a, 76b, 78a and 78b. The surfaces 76 are divided into nine squares each and the surfaces 78 into four.

In this five-tiered board linear combinations of markers extending over four spaces are possible, both in the central surface 74 and in diagonal lines extending over four of the five tiers.

With the larger number of possible winning combinations, permitted by the arrangement of the playing board of FIG. 7, the number of players participating in the game may be increased to four — as opposed to two for the embodiment of FIG. 1. It is also possible to modify the rules by allowing combinations extending over only three markers to be counted toward a final score and to continue the game beyond achieving the first linear array of four markers. For example, a score of five points may be assigned to a player for a four-marker array and a score of three points for a three-marker one. The game can continue until all possible arrays are completed, or until all the squares in the game board have been occupied by markers.

For games admitting of more than two players, markers may be distinguished by color and/or shape, as shown in FIG. 8. Markers 34 and 36 are similar in shape but contrasting in color, while marker 38 may be distinguished from marker 34 by its square base, as opposed to the round one of the latter.

In the alternative construction of FIG. 9 a base 90 supports a lowermost playing surface 48b, while four other playing surfaces, 48a, 46a, 44 and 46b, are mounted on arms 98 of a support column 92. The column 92 is attached rigidly to the base 90 and its arms 98 extend laterally, at equal vertical spacings, under the several playing surfaces.

The schematic, perspective view of FIG. 10 shows a seven-tiered playing board whose central playing surface 104 is subdivided into 25 squares in a five-by-five array. As many as six contestants may play on this board, using markers differentiated by color or shape, and attempt to achieve linear arrays up to five markers in length. A typical scoring evaluation may assign three points to a three-marker row, five to a four-marker one and ten to a five-marker array.

In the partial perspective view of FIG. 11 a playing surface 114 is shown with holes 117 passing through the centers of the squares 17 defined by lines 115 in its face. The surface 114 is specifically adapted for game pieces 40 which are essentially colored marbles. The marbles 40 are larger in diameter than the holes 117 and seat in the latter upon placement by a player.

What is claimed is:

1. A multi-tiered game board structure for three-dimensional tic-tac-toe games, comprising:

an odd number of playing surfaces mounted one over the other, with the surfaces located at vertically spaced levels, and including a central surface at the center level and equal numbers of upper and lower surfaces at levels above and below said central surface;

each surface having a playing area defining playing squares arranged in mutually perpendicular rank and file rows containing equal numbers of squares; said central surface having at least three rank and at least three file rows, and each upper and lower surface having one less rank and file row than the surface immediately adjacent in the direction of the central surface; and

said surface being disposed on a common, substantially vertical, axis passing through the centers of the several playing surfaces and with the rank and file rows of each playing surface in parallel alignment with the rank and file rows of all other playing surfaces.

2. The game board defined in claim 1, wherein there are at least two upper playing surfaces and two lower playing surfaces.

3. The game board defined in claim 1, wherein there are three upper playing surfaces and three lower playing surfaces.

4. The game board defined in claim 1, wherein said playing surfaces are transparent.

5. The game board defined in claim 2, wherein said central playing surface has four file rows and four rank rows.

6. The game board defined in claim 2, wherein said central playing surface has five file rows and five rank rows.

7. The game board defined in claim 1, further comprising at least two sets of game markers, each set including a plurality of markers equal in number to one-half of the total number of playing squares in said game board.

8. The game board defined in claim 7, wherein said sets of markers are of contrasting color.

9. The game board defined in claim 7, wherein said sets of markers are of differing shapes.

10. The game board defined in claim 7, wherein each of said playing squares is pierced by a circular orifice and said markers are of spherical shape.

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